REMARKS

Claims 1 to 19, are pending in this application; of which, claims 1, 7, 11, 14 and 17 are the independent claims. Favorable reconsideration and further examination are respectfully requested.

Initially, Applicants thank the Examiner for conducting a phone interview on 24 October 2006. The Examiner has withdrawn the §112 rejections with respect to claims 7 to 10. The Examiner has indicated that she will reject the original claims 11 to 13 in the next office action under §101. Applicants have amended claims 11 to 13. Applicants discussed the arguments presented below, but no agreement was reached between the Examiner and the Applicants with respect to the remaining outstanding claims.

Applicants acknowledge the Examiner's indication that claims 17 to 19 are allowed. Applicants respectfully submit that claims 17 to 19 may be allowable for other reasons than the reasons indicated by the Examiner in the Office Action.

Claims 1, 6, 7, 14 and 15 were rejected under 35 U.S.C. § 102(e) as being anticipated by Bates et al. (U.S. Patent Number 6,681,384 hereinafter "Bates"). Claims 2 to 6, 8 to 13 and 16 were rejected under 35 U.S.C. § 103(a) as being obvious over Bates in view of Hunter et al (U.S. Patent Application Publication Number 2002/0100024 "Hunter").

Claim 1 is directed to a method of debugging. The method includes receiving a breakpoint selection for a program instruction associated with a first image file for a first

processing engine, identifying a source code file and a source code line in the source code file that generated the program instruction, identifying further processing engines having an image file containing a program instruction generated by the source code line in the source code file and manipulating respective breakpoints for selected ones of the further processing engines based upon user selection, wherein the manipulated breakpoints correspond to program instructions generated by the source code line of the source code file.

The applied art is not understood to disclose or to suggest the foregoing features of claim 1. In particular, Bates does not disclose or suggest identifying further processing engines having an image file containing a program instruction generated by the source code line in the source code file.

In the office action, the Examiner has indicated that column 10, lines 7 to 17 of Bates discloses identifying further processing engines having an image file containing a program instruction generated by the source code line in the source code file. Applicants submit that this is erroneous since Bates only describes a single processor in his description and no reference is made in his invention to multiprocessors (See FIG.1 of Bates). Therefore, Bates cannot identify further processing engines if only one was described.

Applicants discussed this argument with the Examiner during the teleconference. The Examiner responded that the Background Section of Bates discloses that

> "(t)hese operating systems are referred to as multi-threaded, which is a type of parallel processing that allows for more straightforward software design and faster execution of such programs on multi-processor computers" (see column 1, lines 50 to 54 of Bates).

and since Bates mentions multi-processing, the rejection is proper. Applicants respectfully disagree. Applicants respectfully submit that prior art cited in a §102 rejection must include each and every element of the claim. The Examiner is not entitled to read in elements that are not explicitly disclosed in the reference. Bate's mere mention of multi-processor computers in a Background section does not disclose or suggest "identifying further processing engines having an image file containing a program instruction generated by the source code line in the source code file" (emphasis added) as recited in claim 1. Bates does not describe identifying further processing engines much less identifying further processing engines having an image file containing a program instruction generated by the source code line in the source code file.

Furthermore, the applied art is not understood to disclose or to suggest manipulating respective breakpoints for selected ones of the further processing engines based upon user selection, wherein the manipulated breakpoints correspond to program instructions generated by the source code line of the source code file.

Nowhere in the four corners of the Bates reference is there any mention of "selected ones of the further processing engines based upon user selection," because Bates only describes a single processor and the selection of processing engines is never disclosed or suggested. Therefore, Bates does not disclose or suggest manipulating respective breakpoints for selected ones of the further processing engines based upon user selection, wherein the manipulated breakpoints correspond to program instructions generated by the source code line of the source code file.

For at least the foregoing reasons, Applicants respectfully request withdrawal of the Bates reference.

Claim 7 is an article claim having corresponding features to claim 1. Claim 14 is a debugger tool system having the same features as claim 1. Applicants submit the Bates reference should also be withdrawn with respect to claims 7 and 14 for at least the same reasons as claim 1.

Claim 11 is directed to an article. The article includes a storage medium having executable instructions. The executable instructions include instructions causing a machine to render a first window rendering microcode instructions associated with a first image file for a first processing engine in a processor simulator including a breakpoint for a first one of the microcode instructions generated by a source code line in a source code file. The executable instructions also include instructions causing a machine to render a first menu rendering user options including a first option to set breakpoints in multiple processing engines. The executable instructions further include instructions causing a machine to render a second window rendering further processing engines having respective image files containing microcode instructions generated from the source code line and to enable the user to manipulate respective breakpoints for the further processing engines.

The applied art is not understood to disclose or to suggest the foregoing features of claim 11. In particular, neither Bates nor Hunter disclose or suggest instructions causing a machine to render a second window rendering further processing engines having respective image files containing microcode instructions generated from the source code line and to enable the user to manipulate respective breakpoints for the further processing engines.

As described above in Applicant's arguments on claim 1, Bates does not describe further processing engines. Furthermore, the Examiner states "Bates et al. does not teach the graphical user interface comprising of the multiple processing engines" (see page 12 of the Office Action). Therefore, Bates does not disclose or suggest instructions causing a machine to render a second window rendering further processing engines having respective image files containing microcode instructions generated from the source code line and to enable the user to manipulate respective breakpoints for the further processing engines.

The Examiner has cited Hunter to make-up for Bate's deficiency. Hunter merely shows a window for selecting other processors. However, Hunter does not disclose or suggest processing engines having respective image files containing microcode instructions generated from the source code line and to enable the user to manipulate respective breakpoints for the further processing engines (emphasis added). Furthermore, Hunter even teaches away from processing engines having respective image files containing microcode instructions generated from the source code line and to enable the user to manipulate respective breakpoints for the further processing engines by stating "a debug session sets a software breakpoint in a shared memory location" (emphasis added, see Abstract of Hunter). Therefore, Hunter does not disclose or suggest instructions causing a machine to render a second window rendering further processing engines having respective image files containing microcode instructions generated from the source code line and to enable the user to manipulate respective breakpoints for the further processing engines.

Accordingly, for at least the reasons indicated above, even if Hunter were combined with Bates, the resulting hypothetical combination would not disclose or suggest instructions causing a machine to render a second window rendering further processing engines having respective image files containing microcode instructions generated from the source code line and to enable the user to manipulate respective breakpoints for the further processing engines. For at least this reason, claim 11 is believed to be allowable.

For at least the foregoing reasons, Applicants request withdrawal of the art rejections.

Applicants submit that all dependent claims now depend on allowable independent claims.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for withdrawing the prior art cited with regards to any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicants submit that the entire application is now in condition for allowance. Such action is respectfully requested at the Examiner's earliest convenience.

All correspondence should be directed to the address below. Applicants' attorney can be reached by telephone at (781) 401-9988 ext. 23.

No fee is believed to be due for this Response; however, if any fees are due, please apply such fees to Deposit Account No. 50-0845 referencing Attorney Docket: Intel-026PUS.

Respectfully submitted,

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